

# AMERICAN VETERINARY REVIEW,

MARCH, 1886.

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## EDITORIAL.

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### ARMY VETERINARIANS.

We are becoming more or less anxious to know, if possible, about how much longer the members of the veterinary corps attached to the military service of the United States are to be kept in the equivocal if not degrading position to which they seem to have been condemned by the authorities at Washington—how long the Secretary of War and his subaltern the Lieutenant General will choose to continue blind to the importance of the duties and the value of the services pertaining to the competent veterinarian in the army of the country—in a word, when gentlemen of our profession who have accepted official station from the Government may expect to enjoy the consideration which an intelligent sense of justice would indicate as properly their due.

It seems quite out of reason to attempt to explain the difference in the treatment and estimation accorded to members of the same profession by the Governments of Europe, and that of our own country, except by the fact that while the former have become enlightened on the subject by long observation and ample experience, the latter has not even attempted, as yet, to comprehend the situation, and to adapt its measures to the facts of the case.

The fact cannot be ignored that the function of the accomplished veterinarian in the army is one of the very first and high-

est importance to the welfare and efficiency of the force—absolutely indispensable, indeed, to the availability of the cavalry and artillery branches, whether in active field service or reposing idly in the camp. We are aware that such a claim is likely to be met with an incredulous sneer by the pretentious army officer who has arrived at the conclusion that the essence of military efficiency and respectability is exclusively compounded of gilt buttons and shoulder-straps organized into an aristocratic mess; but the intelligent soldier who undertakes to eliminate the artillery and cavalry horse from his working efficiencies, will not be slow to discover that a body whose limbs have suffered amputation will find itself in poor case to contend with an enemy endowed with its proper complement of organs of locomotion, and whom he can no more escape, if vanquished, than he can pursue if victorious.

Whatever may be the reasons which have influenced the denial of the claims of the army veterinarians for adequate recognition in respect to rank and pay, we are, however, not informed. If any have been given, we are not aware of the fact, but we understand that another application is in contemplation, based on the ground of economic change. Whether this is foredoomed to a successful issue, we, of course, cannot say, and our hope of any very satisfying result is but small. Our impression is strong that no adequate concession need be looked for, except as the result of a process of compulsion. The veterinarians now in the army are no doubt holding their positions at a pecuniary sacrifice, not one among them probably realizing a money compensation for his services which would not be exceeded by the emoluments of his private practice. And it is, perhaps, only the mere truth to affirm that the reason why more new applicants are not presenting themselves for commission is that their present income is more satisfactory and ample than the best terms likely to be realized from the official position. The method of self-vindication we would suggest to our brethren may be easily guessed out from these suggestive hints. The whip-hand is with the army veterinarians, and we believe that the only chance for improvement in their position lies in their throwing the onus of reform upon army headquarters. Leave the army without reputable veterinarians

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until suitable rank and pay are attached to their appointment, and the end will not be distant. The resignation (in their own pecuniary interests) of those now holding official place, and the withdrawal or withholding of applications now made or contemplated, will "strike" a blow at the snobbery which undoubtedly inspires the disgust of the epauletted gentlemen whose gorges rise at the thought of messing with "horse doctors," which will effectually settle the whole question. The army will hardly be suffered to retrograde to the period when every blacksmith was a farrier, and the fleam, the firing-iron and an aloëtic ball constituted the whole materia medica. The need of reputable and responsible veterinarians will, in due time, necessitate their employment. Their value having been tested and proved, the government call will be heard, and the inducements to secure a favorable response will be forthcoming with the tender of appointment.

Civil veterinarians were ignored as to the value of their acquirements until their researches into the philosophy of contagion, and their services in the protection of both man and brute from the ravages of fatal epidemics conquered and compelled the consideration of the public, and their reward has come to them in the appreciation they have so laboriously earned and now securely hold.

The lesson must not be lost to the army veterinarian. The army needs him more than he needs the army, and his self-assertion in abandoning a position he cannot hold without a sacrifice of his manly dignity and professional and scientific status will involve no risk of damage of any description which he may not complacently contemplate and safely encounter. Justice at the hands of the government will be sure to meet his demand when thus boldly urged, and his final reward will be found in his permanent retention of the well-earned standing in the ranks of scientists and savants already accorded to him, and finally his reception as the social equal of even the graduates of West Point—which, being once conquered, leaves nothing more worth the contention necessary to acquire it.

As this is not our first reference to this subject, it is not likely

to be our last. The matter at issue is not one which will be likely to be very promptly settled, and the stress which must be felt in Washington before a final adjustment is reached must not be relaxed. Nor shall it be, so far as our efforts may be continued, until the right is established.

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HENRY BOULEY.

We reprint below a translation of a communication forwarded to us by a European correspondent, calling the attention of veterinarians throughout the world to a proposition suggested by the Veterinary Society of Gironde, and endorsed by the Société Centrale de Médecine Veterinaire de Paris, to unite in a testimonial of respect to the memory of one of the world's benefactors.

It is a call addressed not alone to all the veterinarians of France, and of the world, but to all medical societies and learned associations as well, to raise a fund for the erection of a monument to be consecrated to the memory of the eminent man whose recent death has moved all veterinarians to sincere mourning.

There is little need for our saying much in favor of the propriety of this measure, more than that we shall be glad to receive and acknowledge the receipt of any amount that may be placed in our hands to be remitted to the committee in charge in Paris.

The following is the appeal:

CENTRAL SOCIETY OF VETERINARY MEDICINE.

*Public subscription for the erection of a monument to the memory of Henry Bouley.*

PARIS, January 10, 1886.

*Sir*.:—Upon learning of the death of Mr. H. Bouley, the Veterinary Society of Gironde have deemed it to be becoming in them to be first among their professional fellows in promulgating the suggestion that a monument be raised to his memory, through the initiative of the Central Society, as an expression of the gratitude and respectful veneration which all veterinarians

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throughout France would be happy to manifest towards the great master, who, during his life, so nobly honored the veterinary profession.

This suggestion was favorably considered by the Central Society at their first subsequent meeting, and a motion having been unanimously passed for the appointment of a committee to carry the proposition into effect, the following resolutions were reported and adopted :

*First.*—That a monument shall be raised to the memory of Mr. Bouley.

*Second.*—That this monument shall be placed in the School of Alfort, where most of his scientific and professional life was spent.

*Third.*—That a call for subscriptions shall be made to the veterinarians of France and *of the world*; to the medical fraternities; to all the learned societies to which Mr. Bouley belonged; to all friends of science, and to all the numerous private friends of the lamented scientist, in co-operation with the subscription already initiated by the Society of Gironde.

A subscription list, in accordance with this object, has been opened at Messrs. Asselin & Houzeau's, which will remain open for a period of three months.

Signed by

A. GOUBAUX, Director of the Alfort School;  
C. CAGNY, C. LIBLANC, E. MATHIEU, CH.  
PREVOST, A. SANSON, SIGNOL, WEBER, of  
the Central Society; DR. MEURIOT and  
LEON HOUZEAU,

*Executive Committee.*

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#### VETERINARY LEGISLATION.

As we stated in our last number, two bills for the regulation of veterinary practice in the State of New York have found their way on the files, and are now waiting their turn for the consideration of the Legislature in Albany. They were referred to the Committee on Public Health, and we understand have been discussed in that committee by the parties interested. We are not informed as to what has become of the bill offered by the Rochester Veterinary Medical Association. That which was presented

by the New York State Veterinary Society, as amended, was favorably reported by the committee, and referred to the Committee of the Whole. The new bill, with the amendment, will be found in our pages, but what will become of it we cannot say. A communication received from Dr. Kidney, which we also print, reveals a great deal as to the feeling of the members of the profession upon the policy of the bill, and we hope that all those who approve of the measure will make their influence felt in the passage of an act which will compass the most important point which the veterinary profession of this State can secure, in bringing all the practitioners of the State together upon an equal footing, and inviting them all into one large, general, homogeneous body.

#### TREATMENT OF SPRINGHALT BY SHOEING.

An extract from one of our exchanges on the subject of springhalt and its cure, which appeared in the January number of the REVIEW, has elicited the notice of Dr. Bryden, in a letter, which we print on another page, and which furnishes its own explanation.

We had promised the Doctor further information on the subject of this treatment, which appeared in a recent communication made before the Société Centrale de Médecine Veterinaire, but unforeseen circumstances have prevented us from doing him justice at the present time. In our April number, however, we expect to pay our indebtedness, and shall present all the facts before our readers. It is well-known by many amongst us that Dr. Bryden has paid much attention to this special subject, and we are strongly of the opinion that his claim to priority in this new treatment is a just one.

#### NEW JERSEY VETERINARY MEDICAL ASSOCIATION.

The act of incorporation, constitution and by-laws of this scientific body have been published in a neat pamphlet, which forms a handsome and convenient summary of the rules and regulations of the association. President W. B. E. Miller and Secretary W. H. Lowe will please accept our compliments for the success that has crowned their term of office.

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## ORIGINAL ARTICLES.

DISEASES OF THE HEART IN DOMESTIC ANIMALS,  
ESPECIALLY THE HORSE.

BY FR. BLAZEKOVIC.

*(Translated by J. C. Meyer, Sr., V.S.)**Continued from page 456.*

## ANOMALIES OF THE VALVES AND OSTIUM.

All alterations on the valves, as relaxation and laceration of the tissue, shriveling, growing together of the points, new formation of the cellular tissue, formation of callosities, are mostly the products of preceding inflammation, which is known as endocarditis, including the lining of the valves. In such cases the valves are generally insufficient, whereby the returning blood is admitted into such cavities, which, under normal circumstances, are shut off. If, on the other hand, the ostium of the cavity of the heart be contracted in such a manner that obstructions prevent the influx of blood, such a condition is termed stenosa. The valves are larger or smaller, hypertrophied or atrophied; the enlargement is almost constant, with the expansion of the ostium. In a less degree of insufficiency, the bicuspid and tricuspid valves become thickened, due to the new formation of the cellular tissue, also shortened, cartilaginous, frayed at some places, and often grown together and distorted. The outer surface is sometimes studded with protuberances and warts, sometimes with calcareous, cretaceous, and ossified small knots. Such changes give rise to insufficiency of the bicuspid and tricuspid valves, then to the semilunar and aortic valves, less frequently to that of the pulmonary artery. By reason of defective function this alteration also produces stenosis of the cavities of the heart and changes on the valves.

By a contraction of the ventricle a portion of the blood contained therein, which ought to flow into the arteries entirely, is forced backward into the auricle which is already filled with blood. In consequence of the difficult flow of blood out of the auricle, the blood of the discharging veins naturally becomes stagnated. But

when the insufficiency affects the bicuspid valves, or if stenosis be present in the ostium venosum, a stagnation of blood and its evil consequences occurs in the lungs, and consecutive diseases, as chronic hyperamic, chronic bronchial catarrh of the lungs, etc., are found.

We meet with secondary expansion and hypertrophy of the aorta and their issues, due to the insufficiency of the semilunar valves.

Secondary and concomitant symptoms are very frequent in diseases of the heart, and in chronic diseases of the heart nearly always present. These consecutive diseases of liver, lung, kidney, spleen, etc., occupy no unimportant place, since they, in many cases, form the cessative moments of impeding circulation. However, in most cases they are brought about by disturbances in the circulation and stagnation of blood respiration in consequence of imperfect regulation of the circulation on the part of the heart.

The changes which take place in these organs are very numerous, as hyperamic, congestion, exudation, malformation, fatty degeneration, suppuration, ulceration, hypertrophy, atrophy, bursting due to too great pressure and stagnation of the blood, etc. However, they have been repeatedly described in books of instruction and in periodical literature, and I consider it superfluous to mention them further, since they do not represent the essential part of the subject, but are always secondary phenomena. As mentioned before, these consecutives are in general not to be regarded as the cause, but as the effect of abnormities of the heart, particularly of the chronic.

#### DIAGNOSIS AND SYMPTOMS OF DISEASES OF THE HEART.

No affection is so difficult to diagnose as that of diseases of the heart. Only a few expedients are at the disposal of the veterinarian to find out the condition of the affected heart. Still, by utilizing these, though meagre auxiliary means, and by close examination of the often very trivial symptoms, finally—what is most important—by thorough knowledge of the normal functions of the heart, it is possible to declare with certainty the presence of an affection of the heart.

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cardiac sounds. Every deviation from the normal in beat and sound is the surest indication of an abnormality, be it in the structure or be it in the mechanism of the heart. The difference in sound and beat, which in some affections appear more, in others less characterized, determine the nature of the existing affection with certainty or with greater or less probability.

The normal heart-beat is felt behind the left ulna between the fifth and seventh ribs, in the depth, however, very indistinctly. The number of heart-beats varies, according to the kind, size and age of the animal, and is certainly familiar to every practitioner.

By placing the ear to the chest in the vicinity of the heart two sounds can be heard which are determined by the action of the heart and are designated cardiac sounds. By practice we can learn to distinguish perfectly the systolic and diastolic sounds in sound horses only. In sound animals both sounds are full, clear, rythmical, corresponding to the out and in-pouring of the blood in the cavity of the heart, without hindrance, in definite intervals. Cardiac sounds are, therefore, always regular and measured by intervals. They become familiar by practice. Thus auscultation is one of the most important diagnostical auxiliaries in diseases of the heart.

Percussion is as important as auscultation. By percussion we are able to ascertain the size and position of the heart in the chest and its condition to the normal, and therefrom draw further conclusions.

The frequency and constitution of the pulse will give us information of the disorder of the mechanism of the heart, and tell us whether the condition be inflammatory, acute, or chronic. The natural condition of the respiration is less reliable, for often acute inflammatory diseases of the heart develop and terminate without the respiration having changed at the beginning of the disease. In chronic affections dyspnœ is often constant.

Therefore, as a rule, the following holds good: As soon as the respiration is striking and dyspnœ is obvious, no affection of the lungs or pleura being traceable, and no acute inflammatory disease present, then a suspicion of existing diseases of the heart is justified.



The indications of the thermometer will show whether the affection be of an inflammatory nature or not. Additional indications and symptoms, as anxiety, vertigo, weakness, etc., will receive special mention in another place. Such symptoms which accompany and characterize special affections of the heart will now be discussed.

Acute inflammatory diseases of the heart, pericarditis, myocarditis, inflammation of the valves appear, at the outset, with the symptoms appertaining to the inflammation. A minute examination will inform us of the nature and character of the disease.

The chronic and organic innate affections of the heart are still more difficult to determine, but there are certain characteristic symptoms, as deviation in pulse, heart-beat and heart sounds, dyspnoea, emphysema in horses, increased action of the heart, even after a slight exertion, frequent apoplectic attacks, vertigo, repeated staggering and momentary feebleness, which, however, soon disappears, sudden collapse during the performance of work, for instance, when a horse is hard ridden, is also observed. Additional indications are: cyanotic redness and injection of the visible mucous membrane on the eyelids and the vagina, spontaneous hemorrhage from the nose, rectum, and vagina, frequent expansion of the visible capillary vessels, especially the veins. Palpitation of the jugular vein is sometimes found united with plethora in intense defects of the heart.

The perceptible symptoms of the affections of the heart are herewith given in general, and now we shall consider the special symptoms of the disease, which at the same time offer fulcrums for the progress, issue and prognosis.

We are justified in considering as the mildest form of diseases such, as are based neither upon organic defects nor pathological changes, or inflammatory actions, but result from a momentary affection and irritation of the motor nerves of the heart. Their influence upon the action of the heart I will describe later.

#### I.—NEURALGIA OF THE HEART.

Neuralgic affections of the heart are seldom the object of observation in veterinary practice, for subjective fulcrums are wanting, because the animal is unable to give utterance to the

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sensible pains. That, however, such cases of momentary attacks of the heart actually occur is scarcely to be doubted. As they generally pass away without any injurious consequences, they are often overlooked; but when they are intense and protracted they may be mistaken for dyspnœ.

## II.—SYNCOPE.

Momentary faintness is often observed, especially in the horse. The animal falls down and remains motionless for a few seconds. In midsummer such attacks also occur quite frequently in the pasture. Sometimes the prostration lasts a considerable time, from 3 to 10 minutes. Gradually the animal recovers, the pulse is very weak, scarcely perceptible, the heart-beat slow, indistinct, we might say fatigued; the sounds and murmurs, with the exception of the blood-flowing of the blood, show no other perceptible abnormalities. The whole mechanism of the heart can be compared to a steam engine which works with full power and by a sudden closure of the throttle-valve becomes inactive. The cause of such conditions is a morbid irritability of the inhibitory nerves. This condition, and one similar, can be artificially generated by those narcotics and opiates which affect the inhibitory nerves partly directly, partly by reflection or by paralysis of the vaso-motor and excito nerves.

## III.—PALPITATION OF THE HEART.

An abnormal excitement of those nerve-elements which regulate the rythmical action, appears more frequently and is of more importance than the above described condition, and a relaxation of the inhibitory nerves is present at the same time. The action of the heart is increased, often violent, thus producing a condition which is designated palpitation of the heart. Therefore palpitation of the heart is an increased irritability of the heart which arises either from a simple functional or organic abnormality. In the first case the normal state of the heart is easily established during the intervals, whereby we are convinced that the affection is purely functional, but the existence of organic changes is in this case to be regarded as the exciting cause of the functional affection.

As a rule the animal is dejected, appetite diminished or entirely wanting, pulse numbers from 70 to 80 beats, seldom more. If the disorder be purely functional the pulse is harder than normal; if, however, it be the result of organic derangement, the pulse will be intermittent and irregular. The heart-beat is throbbing, isochronic, often transmitting the shock to the whole body; the palpitation is sometimes heard at some distance. The heart-beat is often leaping, rebounding, generally like the stroke of a hammer within the thorax. The breathing is occasionally, though seldom, normal, and may accelerate even the dyspnoea. As a rule, the respiration rises to 30 per minute. Percussion is not to be depended; upon auscultation bellows murmurs are heard. In continued affection dullness and tympanitic sound with bellows murmurs in the lungs sometimes appears. If the disease lasts longer, the animal becomes weak, languid and unsteady. This condition can be confined to three or four hours, but it may continue the same number of days.

In purely functional effects the prognosis is favorable; if organic changes be the cause of the disorder, the prognosis depends upon the nature of the change.

*(To be continued.)*

## INFLUENZA IN A NEW ATTIRE.

Paper read before the Ohio State Veterinary Medical Association,  
by DR. J. C. MEYER, SR., V.S.

The various phenomena in which influenza manifests itself from time to time, and the question whether such a disorder as "epizootic cellulitis" really exists, induce me to give an account of an enzootic pathological process which resembles this complaint.

On June 7th, 1885, I was called to see a bay mare suffering with cramp of the diaphragm. The superintendent of the stock (about 40 in number) drew my attention at the same time to several horses which had slightly swollen feet, and refused to eat

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their oats; others, without any swelling or other abnormal symptoms, merely rejected their oats since two or three days. The tumefactions proved to be warm, painful to the touch, and upon pressure imprints were more or less visible. In a few of them the thermometer indicated  $100^{\circ}$  to  $102^{\circ}$ . Recommended hyposulphate of soda mixed with mash or drink-water, to be given to each of those showing any signs of indisposition.

The next day (June 8th) two of these patients required particular attention. A roan horse, very fat (as they all were), refused all kind of nourishment. Respiration 16, pulse 60, temperature  $104^{\circ}$ ; a trifle tympanitic; inclined to lie down; swelling of limbs, extending somewhat above the hock and knee-joints; peristaltic tardy, intestinal evacuation less, tough and in small balls. The administration of an aperient changed his condition for the better in 24 hours.

The other, a black horse, was so stiff that he had to be forced to move. The swellings on the hind extremities reached nearly to the femoro tibial articulation. Respiration 24, pulse 76, temperature  $106^{\circ}$ ; no appetite. He received a dose of an antipyretic mixture, and a rectal injection of cold water, every three hours. In the evening I found him slightly improved. He took some bran mash, and appeared more cheerful than in the morning, but the superintendent informed me that in the afternoon he was in great distress, indicated by lying down, sweating profusely, moaning, breathing rapidly, for two hours, followed by several copious soft stools, whereupon relief ensued. Closer examination showed that the temperature fell two degrees, circulation but little altered, and respiration 30; stiffness diminished; tumefaction unchanged.

On June 9th both these horses gave evidence of improvement; the black made a speedier recovery than the roan. But the superintendent on this morning counted twenty more which were more or less afflicted with tender swollen legs. Two had ophthalmia of the original type of influenza of 1881. None of these, however, showed sufficient morbid symptoms as to demand therapeutical interference—at least all were able to perform more or less work.

In a livery and boarding stable another lot of horses (ten out

of thirty) complained in the same way, the symptoms being imperfect appetite, lassitude, at the same time painful swellings (of the same character as those mentioned above) appearing in the lower part of the extremities, particularly the posterior. They all recovered in about a week or ten days.

Now it is quite obvious that the therapeutical value of this short report would hardly justify my occupying your time, since the course of this disorder, with few exceptions, proved to be a mild one. But the uniform attack of so many occupants in one stable was something new to me, having met it only in sporadic, but not in enzootic form.

The influenza of 1881 is in some respects analogous to my cases; in fact, I take it to be the same, only of a mitigated character, stripped mostly of the ophthalmic and enteritic complications.

Nearly all the animals affected in 1881 with influenza, popularly called "pink-eye," had more or less swollen limbs. In the majority these swellings were of a pseudo-erysipelatous character, and a small percentage of an œdematous type. As I intimated before, the disease I met with may be genuine cellulitis.

The title Dr. Meyer, Jr., chose for his subject, "Epizootic Cellulitis" (in the fifth volume of the REVIEW), might have been improved; still, his nomenclature conveyed a better idea to the average reader, as to the kind of influenza he was to be informed of, than by using the universal term. Since making my observations last June, I am obliged to differ with Dr. Holcombe, who, in an answer to Meyer's article, attributes the tumefied extremities merely to a debilitated condition of the circulating organs.

Regarding the cause I am obliged to keep silent, it being a mystery, and will remain so for some time to come. Still, some points are worth mentioning, namely: Both the stables in question are new brick buildings. The one might be called a model structure—the basement occupied by wagons, the first and second floors by horses; well ventilated and kept as clean as a human dwelling. The other, equally as well kept and ventilated, has its apartments where the horses are kept on a level with the street. These stables are located about a half-square apart, close to the

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Miami canal. Probably the canal atmosphere was instrumental in modifying the severity of the cause in this disease.

In other parts of the city numerous cases of the original character have turned up, without much loss, except in the sale stables, where the death rate was quite out of proportion.

## REPORTS OF CASES.

### REMOVAL OF TUMORS—RENAL FISTULA—NECROPSY—REMARKS.

By C. C. McLEAN, V. S., of Meadville, Pa.

June 17th, 1885, I was requested by a farmer to examine a grey gelding that he had traded for the previous week. I found a dark iron grey gelding, four years old, in good condition physically, except that he had a discharge of creamy pus from an opening about three-quarters of an inch in diameter from the left groin. His owner was unable to give me any information in regard to the animal's previous history from the fact of his having been owned by a class of dealing horsemen. He was a capital horse for that class of men; they would wash off the discharge and trade him to some unsuspecting customer who on entering his stable the following morning would be surprised to find the new tenant's leg smeared with the pus on the inner side from groin to hock. There was nothing peculiar about his manner of progression, except that he stepped a little shorter with the limb on left side, and no abnormal external appearance but slight atrophy of gluteals that would escape the attention of the casual observer. This was the first opportunity I had of seeing this horse, but from that time I was asked for opinion as to chance of recovery and expense of treatment, etc., by seven or eight different men, but none would consent to an operation till one E. Knorr got possession of the unfortunate victim. Mr. Knorr was the first man that gave me a chance to make a thorough examination, at which time I found, after casting him and examining per rectum, using a catheter as a probe, that there was a sinus extending from behind the left kidney to the external opening in the groin, and that there was a large growth under the transverse process of

lumbar vertebræ on the left side which, from the rectal examination, appeared to follow the course of the spermatic cord. My first impression was that I had to deal with an internal champignon. I could insert nearly entire length of a catheter in sinus. There was some difficulty in getting catheter past beginning of growth, but could accomplish it with the other hand in rectum. I advised Mr. Knorr of the risk of operation, etc., but insisted as much as I deemed proper on having the operation performed; but he became frightened when he discovered the depth of the fistula, and I have since learned he had several of the bugbears of our profession injecting various solutions before and after I examined him. The next opportunity I had of seeing this horse he was the property of one Mr. Hotchkiss, who consented to an operation. Accordingly the horse was prepared for operation by proper diet for several days. Chloral hydrate was given and horse cast. I made an incision in scrotum where incision for castration had been made, and broke down adhesions around end of cord, and followed its course to the internal inguinal ring. I found no inflammatory action about this portion of the cord. I next followed the procedure I pursue in castrating the cryptorchid, as I think there is less danger of hernia, and that is to break into peritoneal cavity superior to the inner abdominal ring (inferior when horse on his back.) I now found the growth that I had felt by rectal exploration to be very firmly attached, but after some difficulty and with use of hooked embryotomy knife, I succeeded in detaching every portion except next left kidney, and I might here state that members of our profession who have never had any experience in removing abdominal growths have not the slightest idea of the care required in using the knife, the great necessity of acuteness and touch, and accurate anatomical knowledge. By unfastening one end of ecraseur chain I was able to pass the free end around growth, pushing the ecraseur in opening, fastened the free end of the chain, and by the assistant turning the ecraseur I removed the tumor, which was semi-cartilaginous in the centre, perforated in all directions by small fistulous openings, which on pressure would show that they contained pus of the same character as that discharged by inguinal sinus.

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No hemorrhage occurred during the entire operation. Effects of chloral well marked. After treatment consisted in placing the horse in a warm box stall that had been thoroughly disinfected, a vegetable diet given, and the purest of cold water, little at a time.

January 2d, day of operation.

8.30 P.M.: Temperature, 103 4-5°, F.; pulse, 90°; respirations, 65°.

January 3d.

8.30 A.M.: Temperature, 103°, F.; pulse, 88°; respirations, 40°. Nothing but serous discharge from incision; no discharge from sinus. 1.30 P.M.: Temperature, 102 3-5°, F.; pulse, 96°; respirations, 56°. 7 P.M.: Temperature, 103 1-5°, F.; pulse, 96°; respirations, 40°. Pulse indicating peritonitis; slight pain; tincture arnica given every two hours, and morphia sulph. gr. ii.; hypodermic tincture acon rad. gills, x.; hypodermic tincture acon rad. gills, x., 4 to 6 hours.

January 4th.

9 A.M.: Better; temperature, 102 4-5°, F.; pulse, 72; respirations, 36. 1.30 P.M.: Temperature, 102 3-5°, F.; pulse, 88°; respirations, 24°. 7 P.M.: temperature, 102 3-5°, F.; pulse, 75°; respirations, 24. Appetite good; urine milky; bowels moved three times during night; passages soft; little pus comes from incision, none from sinus.

January 5th.

9 A.M.: Temperature, 101½°, F.; pulse, 70°; respirations, 16°. 7.30 P.M.: Temperature, 101°, F.; pulse, 70°; respirations, 16°. Pus runs freely from incision; no swelling.

January 6th.

9 A.M.: Temperature, 101°, F.; pulse, 65°; respirations, 16°. Urine chocolate, and large quantity passed; did not examine any; there was no change in the pulse, respirations or temperature till January 8; appetite good; actions bright; there has been no swelling of any kind, and but very slight soreness; when moved can be noticed in left limb.

Evening, January 8th.

Temperature, 104°, F.; pulse, 78; respirations, 32. Appetite

good; ate mess for supper, which consisted of boiled oats with little bran and six carrots; horse lay down and rested quiet six hours during night.

January 9th.

4 P.M.: Temperature,  $104\frac{1}{2}^{\circ}$ , F.; pulse,  $90^{\circ}$ ; respirations,  $40^{\circ}$ . No appetite; anxious physiognomy; injected membranes; ears and limbs cold; I saw that there would be a fatal termination shortly.

Morning, January 10th.

No chance for recovery; had him destroyed immediately, and at necropsy found but very slight peritonitis, and renal fistula was pathological condition I had been dealing with; there was nearly complete degeneration of the left kidney; there was the same kind of pus as in growth removed at operation; the right kidney was greatly hypertrophied, weighing 2 lbs. and 13 oz.

Now, the question arises: Was the tumor the result of the diseased kidney or *vice-versa*; was renal fistula the result of suppurative nephritis? It could have been the result of calculi, foreign body gunshot wound, or nephritis. There was no obstruction in the ureter. I have since learned that this horse never showed any but healthy-looking urine until time I mention after operation. Knowing that there are but few cases of renal fistula recorded in human practice, and none in veterinary that I can discover, I sent you the kidneys, Mr. Editor, without making any examination to discover calculi or foreign body, and regret very much that I did not preserve the tumor that I might have sent it also; the tumor would certainly weigh one and a half pounds. Other interesting points in this case are that the horse should remain in such good condition, and that there should be such a variation in temperature, pulse and respirations, in so short a time that there was no swelling, and but very slight soreness. The tumor misled me, from the fact of its being small on side next kidney—*i.e.*, having a constricted portion on kidney side. I could have performed nephrotomy at same time with but little more trouble had I the slightest idea the kidney was diseased. I rather think it had undergone such a change that the renal artery would not have

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had to be ligated. There was nothing to be discovered at necropsy that should have caused this horse's death except the kidney, and I did not examine that as closely as I should, for the weather was cold and gave me a chance to send to New York for examination while fresh.

What caused the sudden failure? Exception might be taken to the place I selected for external opening, but I contend that that was the better place for incision; first, for drainage; second, easier access to location of disease, and safer; but I would not argue that it was the best place for incision in nephrotomy, but I could have removed this kidney in this case had I been able to see its condition as I would have in a flank incision. In explanation, to cause of no swelling, etc., I would state that I think if every surgical operation was performed with the following precautions there would be less unfavorable results: the operator should not touch the horse or rope until the animal is cast and secure, and veterinary surgeons, I am sorry to say, are too careless about the condition of instruments and their hands when operating. Every instrument, as well as the hands of the operator, should be thoroughly washed in carbolyzed water. The proper use of disinfectants and antiseptic remedies in the apartment occupied by the patient is just as necessary as that they should be applied to the wound.

#### STRANGULATION OF SMALL COLON.

By W. H. ADAIR, V.S.

An aged gelding, weight ten hundred, had been used regularly for the past two years on public carriage. I was called in haste at 6 A. M., January 9th. He was all right at 5 A. M., eating his regular feed. After eating about half, he began to perspire very freely, so much so that it ran off in great drops. He staggered and fell backwards, breaking his halter. When I arrived he was unrestrainable—even unto madness—sweating profusely, rearing, crouching behind, falling backward, rolling upon his back, sitting on his haunches, pressing his nose to left flank and biting at abdomen. A subcutaneous injection of 6 grs. of morphia stopped perspiration and pain to a certain extent for half an hour. At this stage his pulse was 50 and strong, temperature only 90°; the



introduction of my hand into the rectum caused acute pains, although it was quite empty. I made a diagnosis of strangulation of the lower bowels, after hearing the following history: During the last six months he has had as many attacks, which would last from three to ten minutes, during which time he would tremble and sweat very profusely, recover, and apparently be all right for a month or so. Some of these would come on while out driving, but as a general thing immediately after watering.

After an hour from the administration of the opiate he began his former antics. I now let him inhale chloroform until he went down completely under its influence. I kept him in this condition for over an hour with hopes of reducing the strangulation, but to no effect. I now took into consideration the low rectal temperature, the irritation caused by rectal examination, pulse growing weaker, membranes becoming more injected, anxious expression of countenance and persistence of the symptoms, and concluded that any treatment other than opiates would only hasten the death of the animal. Therefore I gave subcutaneous injections of morphia as the symptoms required. After eight hours he became very tympanitic, which I relieved with the trocar. Gas came away dry, showing no inflammation of the large intestines. He now urinated freely. I now left him, telling the groom to call me if he swelled again, but he went to sleep, and I found my patient dead the next morning.

*Post-mortem.*—Very tympanitic; no inflammation of large intestines; the small colon all rolled up in a mass about the origin of the posterior mesenteric artery. This I severed and held up, and it made three complete turns before untwisting: presented very little inflammation in some of its parts, while other parts were undergoing gangrene for six inches in places. The reason of this patchiness was due to blood supply being shut off by strangulation.

#### COMPLICATED INFLUENZA.

By H. B. PRATT, V.S.

*Case I.*—Large sorrel horse, five years of age, taken sick with influenza October 28th. Began to improve about November 4th, and improved so that on November 8th his nurse complained that

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if he left him for any length of time he would eat his tie-rope and get loose and fight the other horses. I might state here that it was a very large sale stable, and the sick were kept on the second floor. On the 10th he commenced to discharge a large amount of saliva, and could not eat so well; the day before he was a great feeder. I made an examination of his mouth as well as I could; he was very loth to have his mouth handled. I noticed on each side of his tongue a watery-like swelling. I lanced it, but it would not bleed. I left a mixture to be used with syringe; was called back in one hour. The horse had fallen for want of breath. I at once performed tracheotomy; it gave him a great deal of relief, of course, but every time he attempted to swallow he would have a strangling spasm and some of the gruel would be returned through the tube. The next day I again lanced the swellings, and a black, tarry-like blood issued forth. The tongue was now protruded some four inches, and was cold and dark-colored. He died next day, suffering terribly; could not get near him. I did not get an opportunity to hold post-mortem on this case.

*Case II.*—Had sore throat for four or five days; was four years of age; in same stable. Was kicking up his heels at 12 o'clock; at 2 o'clock was breathing labored. I got to him at 3 o'clock; was compelled to perform tracheotomy at once; did not give any drink at all; same symptoms all through; tongue would not bleed, and was protruded same as first case. He died at 11 o'clock.

Post-mortem showed everything seemingly healthy, except tongue and glands underneath; tongue was as large as the mouth would allow, it being forced open three or four inches.

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## VETERINARY LEGISLATION.

AN ACT TO REGULATE THE PRACTICE OF VETERINARY MEDICINE  
AND SURGERY IN THE STATE OF NEW YORK.

Introduced by Mr. WINDOLPH—read twice and referred to the  
Committee on Public Health—reported favorably from said  
committee and committed to the Committee of the Whole

*The People of the State of New York, represented in Senate and Assembly, do enact as follows:*

SECTION I.—No person shall practice veterinary medicine and surgery, or any branch thereof, in this State for compensation, or shall, either directly or indirectly, receive or accept for his services as a practitioner of veterinary medicine or surgery, any fee or reward, except he be duly registered as hereinafter provided in the book for that purpose in the office of the Clerk of the county in which he resides.

§ II.—No person shall be entitled to register as such practitioner unless he be a graduate of a legally chartered or incorporated college or university, or shall hold a certificate of qualification from a legally incorporated veterinary society, organized at least one year before the passage of this Act, and such certificate shall be issued at least one year previous to January first, eighteen hundred and eighty-six, except as provided for in Section III of this Act.

§ III.—Any person who has been continuously practicing veterinary medicine and surgery in this State as a means of livelihood, for a period of not less than five years immediately preceding the passage of this Act, without having obtained a diploma or certificate from a legally chartered or incorporated veterinary college, university or society, as provided for in Section II. of this Act, must register within six months after the passage of this Act, upon making and filing with the Clerk of the county in which he resides, an affidavit, stating that he has been so continuously practicing veterinary medicine and surgery for the period hereinbefore prescribed.

§ IV.—The County Clerk of each county shall provide a book, to be known as the "Veterinary Medical Register," in which shall be recorded the name of the registrant, the name of the college or university granting his diploma, or of the society granting his certificate; or should the applicant not present such diploma or certificate, then the Clerk shall file the affidavit prescribed in Section III of this Act, after which such applicant must register in like manner as if he had presented a diploma or certificate from a veterinary college, university or society, and shall then be

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entitled to continue the practice of veterinary medicine and surgery. Every applicant who shall have complied with the foregoing provisions, and shall be admitted to registration, shall pay to the Clerk of said county the sum of two dollars, which shall be received as full compensation for such registration.

§ V.—Any person who shall present to the Clerk for the purpose of registration any diploma or certificate which has been fraudulently obtained, or shall practice veterinary medicine and surgery without conforming to the requirements of this Act, or shall otherwise violate or neglect to comply with any of the provisions of this Act, shall be guilty of a misdemeanor, and shall for each and every offence be punished by a fine of not less than fifty dollars, nor more than two hundred and fifty dollars, or by imprisonment in the county jail for a term of not less than ninety days, nor more than two years, or by both fine and imprisonment. But nothing in this bill shall be construed to prohibit students from prescribing under the supervision of preceptors, or to prohibit gratuitous services in case of emergency, or to prohibit the services of an authorized practitioner of a neighboring State when incidentally called into requisition.

§ VI.—This Act shall take effect immediately.

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## CORRESPONDENCE.

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### ON THE USE OF MORPHIA.

SPENCER, IOWA, Jan. 21, 1886.

DEAR SIR: I noticed in a number of the REVIEW last summer an article which appeared at the time to me to be a pretty strong drawn fable with reference to the amount of morphia which a certain old horse took with apparent benefit. My doubts are all dispelled, however, by a case I had recently. Mr. J. L. Hewitt, of this place, called on me to give him something to give an old family horse which was too old by several years to be of any use to him and whose life appeared to be a burden to herself; some thing which would comfortably ease her out of existence. I gave

him one drachm of morphine, which he gave in solution at one dose to the mare. She was then turned loose in a small paddock where her grave was dug. All day she wandered around, appearing dull and stupid, eating nothing and drinking nothing. Next morning she was livelier than she had been for years before, frisking about like a young horse and calling loudly for her oats. Mr. Hewitt, however, thought her coltishness liable to be too ephemeral and too expensive to be repeated, so he had her shot.

Another case which may be of interest to your readers was that of a heifer belonging to Dan Gillespie of this place. The man in charge of her told me the cow had "cast her wethers," as the expression is here. I found the heifer, which was in calf eight months, with her vagina everted. I replaced the tumor, which was as large as a man's head, and retained it in position with the bottle pessary described in Fleming's Obstetries, and gave ten grains morphine to allay the straining. Had to replace it in two weeks on account of part of tackle slipping, and in four weeks more delivered a healthy calf with some difficulty, after which straining permanently disappeared.

W. P. ROBINS, V.S.

#### SANITARY LEGISLATION.

FORT WALLA WALLA, W. T., Jan. 20, 1886.

*Editor American Veterinary Review:*

DEAR SIR: A bill for an Act to suppress and prevent the spread of contagious and infectious diseases among domestic animals has been introduced in the Legislative Assembly of Washington Territory by Hon. J. Dewar, Member of the House of Representatives. Sanitary legislation is greatly needed in this Territory, as glanders prevails to an alarming extent and is spreading rapidly.

Respectfully,

E. R. FORBES,  
Veterinarian 2d Cavalry, U. S. A.

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## TREATMENT OF SPRINGHALT.

BOSTON, January 19, 1886.

DEAR SIR: In the January number of the *AMERICAN VETERINARY REVIEW*, page 428, is an article on "Treatment of Springhalt by Shoeing," by Mr. Montagnac, in which he says, "The treatment of this affection, originated by Mr. Watrin, is carried out by proper shoeing, etc." The study of animal locomotion, especially in the horse, is a subject in which both my father and I have always taken a deep interest. During my practice of about fifteen years I have never treated springhalt except by shoeing in the adult, and by careful modification and cultivation of the hoof in those younger, and it is well known my father has followed this practice for a much longer period. My impression has been that he originated this system by treatment for springhalt and other diseases peculiar to the horses' limbs. If, however, some one is ahead of us, none will be more willing to give credit where it rightfully belongs.

Will you have the kindness to inform me where I can obtain Mr. Watrin's explanation of his system, and whether it is old or new. Please pardon my troubling you with this, as you are aware the views held by me with reference to diseases of the locomotive organs subjected me at times to severe criticism by members of the profession and others. It is, therefore, some satisfaction to find others working in the same field and attracting the attention of scientific societies.

Although rather late, permit me to present to you the compliments of the season.

Yours faithfully, WILLIAMSON BRYDEN.

## VETERINARY LEGISLATION.

MALONE, N. Y., Feb. 9, 1886.

*Prof. A. Liautard, M.D., V.S.:*

DEAR SIR—The *REVIEW* informs me to-day of veterinary legislation. I am rejoiced to see it. Our Assemblyman from this county asks for instructions. I see there are two bills. The first one suits me best for many reasons. I am not a graduate of

any college of veterinary medicine, but have practiced ten years and studied all the text-books I could reach, and have met with success and am getting a good practice. I have never been able to find time and money to get through college, as I certainly should have liked to, and am not at enmity with the bill proposed. I shall do all I possibly can for it, and take my chances for future practice. I am with you in thus protecting the people at large as well as the profession. Now, what I wanted was this: Please write me at once what you want, and I will see that Clinton, Franklin and St. Lawrence counties are with us shoulder to shoulder. I can do all you ask me to get this part of the State for the bill. If you have any suggestion, or anything that will be of use to the advancement of veterinary medicine, I shall heartily work for all that is just for its cause. If you think this is of use to you, let me know in haste, so all can act on the approach of the bill.

Very respectfully,

DR. GEO. H. KIDNEY.

### OBITUARY.

W. G. SCHMIDT.

W. G. Schmidt, D.V.S., of Newark, N. J., died suddenly on the 17th ult., from heart disease. He had returned home only a short time since, after recovering from a very severe attack of nervous disease, brought on by ambitious hard work, and everything seemed to indicate that he was to enjoy a long life, when, returning from a short promenade, he was suddenly taken away. Dr. Schmidt graduated at the American Veterinary College, class of 1878.

### SOCIETY MEETINGS.

#### NEW YORK STATE VETERINARY SOCIETY.

The regular monthly meeting of the New York State Veterinary Society was held at the American Veterinary College, New York, on Tuesday, February 9, the President in the chair.

Members present were: Drs. Burden, Berns, J. S. Cattnach, Bretherton, R. W. Finlay, Dixon, Jacobus, R. Ogle, Denslow, Kay, Pendry, Faust and R. M. McLean.

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Minutes of last meeting were read, and on motion, adopted as read.

The following paper on Hernia was then read by Dr. Faust, of Poughkeepsie :

#### HISTORY AND TREATMENT OF HERNIA.

It is probable that the existence of hernia in animals was known as early as it was in human beings, although ancient veterinarians say nothing about their curatives through operation.

Jordanus Ruffus, who lived in the thirteenth century, was probably the first man who operated on scrotal hernia, but he speaks of it in general as incurable.

Solleysel, (1677), a blacksmith, invented a bandage in which the animal could work with all ease; he claims to have cured hernia with an astringent, but asserts that castration is the *proper* method of treatment.

Robertson, (1767) mentions a number of cases of umbilical hernia, of unusual large size, which were successfully treated with the bloody seam.

Vitet, (1771), advises to enlarge the ring to permit the intestines to go back, and then use the quilted sutures in scrotal hernia, but acknowledges that the operation is very difficult, and the success doubtful.

Lafosse, (1772), advises the seam over the opening of the rupture; also mentions the treatment with a bandage in fresh cases, with good success; if this fails close the ring with sutures.

Wolstein, (1784), asserts that strangulated inguinal hernia can neither be successfully operated on, nor, through any other means, be cured; and speaks of all minor ruptures as incurable. His opinion is that the use of bandages in young animals does more harm than good.

Viborg, (1802), says that the closing up of the ring is the most difficult and dangerous method, but, at the same time, mentions that Abildgaard and Lund, of Spain, have, by this method, very successfully operated on horses.

Schreger, (1803), used for umbilical hernia the seam or ligature; and on scrotal hernia, the ligature of the whole scrotum.

Pilger, (1803), considers all bandages useless, but treats inguinal hernia by closing up the rings by sutures; and treats scrotal hernia by castration.

Roupp, (1811), operated on a horse for inguinal hernia by the covered operation, after replacing the intestines through the rectum.

Colin and Delafoy, (1826), adopted the same method, with good success.

Greve, (1821), considers the operation of large and chronic scrotal hernia very difficult, but a cure possible. He does not agree with Wolstein, who says that all ruptures are incurable.

Girard, (1827), wrote an essay on inguinal hernia, in which he reported thirty-six cases.

Renault, (1836), operated on two horses for strangulated inguinal hernia, after inflammation had set in, but without success. His opinion is that an operation before the inflammation sets in, if the intestines do not protrude too far, by an incision made in the flank, will successfully reduce the rupture; but an operation in that manner by Dutténhofer, (1838), was without success.

Jessen, (1840), operated on thirty-nine horses with strangulated scrotal hernia, and saved twenty-eight; his method is not mentioned.

Elonet says, that during twenty-six years of practice he operated on three

thousand animals for hernia, using the shoemaker seam, of which he lost but three, and they died of tetanus.

The history of cases of hernia that have occurred within the past few years I have not mentioned, as, undoubtedly, they are known to all the members of this Society.

*Case No. 1.*—A three year old gelding, owned by Mr. S., was treated for umbilical hernia by counter-irritation and astringent. To this treatment I objected, on the ground that the ring was too large; but the treatment was continued for two months, and then terminated in strangulated umbilical hernia. I was then called. I cut through the skin, enlarged the ring to allow the intestines to go back, but, as mortification had set in, was unsuccessful.

*Case No. 2.*—An eighteen months old gelding, owned by Mr. M., had umbilical hernia. I operated after the method of Traeger, by placing a ring of sufficient size over the hernia, and, with a pair of forceps, pulled the skin through the ring, placed a ligature between the belly and the ring, and, by so doing, strangulated the surplus skin. On the third day I placed the second ligature in the same place, and on the tenth day the slough was complete, and a good recovery was made.

*Case No. 3.*—A bull dog, King of the West, owned by Mr. R., was injured by a cow. The injury produced a ventral hernia of a very large size; his owner brought him to me to be operated upon; I made an eight-inch wooden clamp, pulled the skin tight, and then placed the clamp over the ring and fastened it the same as in castration, only temporary; then I put three screws through the skin and clamp. The skin sloughed off in fourteen days and made a good recovery, so that even now no scar can be seen.

*Case No. 4.*—A four year old gelding, owned by Mr. O., had inguinal hernia. Treatment.—I first reduced the hernia through the rectum, as advised by Roupp; then placed a clamp as tight to the ring as possible, and fastened with screws as before stated; in thirteen days the slough was complete, and a good recovery made.

*Case No. 5.*—A three year old mare, owned by Mr. V., had a very large umbilical hernia. I operated with the clamp, and was unsuccessful. Operated the second time with the shoemaker seam. I placed a temporary clamp on top of the ring, pulled the skin tight and made the seam between the ring and the clamp. The operation was successful. This method is recorded in Herring's Surgery, page 204.

*Case No. 6.*—A five year old mare, owned by Mr. S., had a ventral hernia. I operated with the clamp; the slough completed as usual, but with no good results.

*Case No. 7.*—A male colt, four weeks old, owned by Mr. M., had a double direct inguinal hernia; it was so large that the colt could not stand erect to nurse longer than a minute; it learned to reduce the hernia with its own mouth. I operated after the method adopted by Seblanc, reported in "Foster's Surgery," page 359. Two men held the colt suspended by his hind legs; this brought the hernia back. I used the curved needle with cat-gut; placed the needle a half-inch back from the edge of the ring; pierced through the outer skin and abdominal muscle, then carried the needle to the opposite side of the ring, half an

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inch from the edge of the ring, and brought the needle to the surface; closed the ring by tying; then made four sutures in each ring in the same manner. The colt made a good recovery. The reason of my accepting this method, was because it prevented the air from passing into the abdominal cavity.

The paper proved very interesting and resulted in a very general discussion, during which Dr. R. W. Finlay expressed his pleasure at having heard the paper read; he considered it placed at our service a statement of the different plans, and the essayist's own one was certainly unique, and considerable credit was due him. The operation was one that might be termed a covered one, and the only danger, he thought, likely to result, was septicemia following the large slough.

The essayist replied that he had not had any trouble in that way; he had treated many more cases than those reported, with equally good results, and in answer to the Chair, said the clamp simply held the skin.

Dr. J. S. Cattanaach said he had used a steel clamp with hinge and screw, with success. He favored the essayist's treatment, as did most of those present.

The discussion closed with a vote of thanks to Dr. Faust for his paper.

Dr. Pendry's notice of alteration of By-Laws was then taken up, who explained that the first alteration was to change the annual meeting from March to December, and his reason for wishing to do so, was that the act, under which the Society was incorporated, called for a yearly statement to be filed with the Clerk of the County, in the month of December; if the change was made, a copy of the annual report could be filed.

A motion was made and carried to the effect that the alteration be made, to take effect after the next annual meeting.

The motion to alter Section 1 of Article IV, so that all newly elected members should be residents of the State, after much discussion and opposition, was voted down; also the one obliging members to pay their initiation fee before being placed on the roll; it being held, that under the present reading of the By-Laws, no one became a member until he had done so.

The proposed alteration, making the annual dues two dollars instead of one, was unanimously adopted.

Dr. Pendry, chairman of Committee on Legislation, reported that the bill, as adopted by the Society, had been introduced into the Assembly and referred to the Committee on Public Health. He had found that another bill, endorsed by the Rochester Veterinary Medical Association, had been introduced a week previous, which also had been referred to the same committee. In response to a notification, he had appeared before that committee at Albany. He need hardly say that he had opposed the Rochester bill, which called for an Examining Board to examine all those now in practice, whether graduates or not. It was not on that account that he had done so, as that was about the only good point in the bill; but because he was sure it would never see daylight outside of the committee room, an opinion that he was upheld in by many members of the Legislature; and so he had viewed it as a stumbling block to the other one. He had, therefore, opposed it and pleaded for the one endorsed by this Society; and he was pleased to say that the committee had viewed his arguments so much more favorably than those of the Hon. Chas. R. Pratt, the father of the other bill, that they had reported favorably the Society's bill, with a slight amendment, so that



students could prescribe under the supervision of preceptors; that gratuitous services could be given in cases of emergency, and that authorized practitioners of a neighboring State could prescribe, when incidentally called into requisition. The report was received with applause.

The Secretary presented a bill of ten dollars, being his expenses to Albany in March, 1885, on legislative matters, which, on motion, was ordered to be paid.

The Secretary reported that only the American Veterinary College had replied to his notification as to prizes.

The President gave notice that he had appointed Drs. S. S. Field, Geo. H. Berus and R. W. Finlay, as Examining Committee for prizes.

Meeting then adjourned.

W. H. PENDRY, D.V.S., *Secretary*.

#### OHIO STATE VETERINARY MEDICAL ASSOCIATION.

The Ohio State Veterinary Medical Association held their annual meeting at Mount Vernon, January 12, Dr. J. V. Newton presiding.

An address of welcome was delivered by Dr. J. C. Gordon, M.D., who welcomed the Association to the hospitality of the city.

Twenty members from different parts of the State were present to answer the roll call.

The reading of the minutes of the previous meeting was next in order. They were approved as read.

New members were then proposed.

T. E. Jones, V.S., Newark, Ohio, and Prof. Detmers of the State University, were then vouched for as being graduates of a regularly constituted veterinary college. The ballot was passed and both members were duly elected.

Upon being introduced, Dr. Jones said his forte was not speech making, but he felt proud to become a member of an Association where the quack horse doctor was not recognized as a professional; and he hoped the day was not far distant when legislation would prohibit all non-professionals from assuming the title of Veterinary Surgeon, unless they were entitled to the degree.

Dr. Detmers expressed his pleasure at becoming a member. He thought the profession in Ohio ranked with that of any other State, but still had not attained that place of honorable distinction to which it was entitled. Twenty years ago, when he landed in this country, he felt ashamed to claim the title of Veterinary Surgeon. Happily those days are gone by, and now the masses begin to understand what the title means, and now the profession ranks amongst other professions—as of right it should. He also spoke of the modern discoveries that had been made by the veterinary profession, not only in this country, but in foreign countries. One unfortunate feature is that most of our veterinary colleges are private enterprises, when, in his opinion, they should be State institutions; and until then there would be great difficulty experienced in perfecting the education of young men. And now seems to be the proper time for the different States to open such institutions, where young men will receive a thorough veterinary education. He was proud to state that Ohio had taken the proper steps in connection with the State University at Columbus. He expressed himself pleased

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to see the harmony that was existing in the profession in Ohio, as unity is strength, and without the united support of the profession, veterinary legislation could not be obtained.

The next business in order was communications and correspondence. A letter of regret was read from Prof. A. H. Baker, of the Chicago Veterinary College, who stated that he would be unable to attend, but expressed his thanks for their kind invitation, and it would have afforded him great pleasure to attend the meeting; and that he was particularly interested in veterinary education, and that any practical suggestions that the Association might make would meet with his approval.

A letter of regret was read from Dr. R. W. Finlay, of New York, who stated he would be most happy to attend our meeting, but important business connected with professional interests in this State, compelled his close attendance there. The subject of medical education he felt deeply interested in, and there was great need of a united and general effort in that direction. He was glad that Ohio will lead in the matter, and wished them every success. He also asked that his congratulations be extended to the members of the Association, and wished they might have a pleasant and profitable meeting.

A communication was also received from Prof. Liautard, in answer to the resolutions passed at a previous meeting, bearing upon the subject of veterinary education. "In answer to the first query relating to matriculatory examination, you will notice, by reference to our announcement, that we require certificates of schools of English education; and if this is not obtained, our candidates are submitted to a close examination in reading, spelling, writing, etc., etc. This is little, I agree with you, but is it not enough? Can you not judge of the general ability and education of one by those alone? Is it not fair to believe that one who writes good and correctly, and reads well, is most certainly in possession of a better education than we could require, say in arithmetic or other branches. We ask this examination, we enforce it, and therefore you see, that we fully appreciate its value and its necessity. Second, as to making the course three years. This is a step I have always encouraged, and still I doubt if it can be faithfully, honestly and truly enforced, except on one condition, that is to do as we do. We demand at least two years, but we do not make it obligatory that a student must graduate after that length of time—far from it. To all who can, we advise to take three years, and many of our students follow our advice. I do not believe that it is in the number of years that will be put on an announcement that we can expect to inspire our graduates. I believe it will be in the honest, true and impartial examination of a candidate; and you will agree with me that many two years' students have graduated who did not deserve it. It is true, however, that many have turned out to be good practitioners and useful veterinarians. I doubt if this three years clause will ever be adopted, so long as veterinary colleges remain private undertakings, and so long as the loose manner of education is allowed to be followed, as it is in some, by a graduation to one who has never been in college or never passed a single examination at a college. What I would like to see is this, a National Board of Examiners to grant the same, and award diplomas to candidates coming from any school, but such as are debarred from that power of granting diplomas. This, I believe, would be just right, and

just in proportion to the standing of the veterinary profession at present. Third, Do I believe in apprenticeships? Yes, I believe students will do well to get practical knowledge as soon as possible, providing it is with an educated man." Prof. Liautard also expressed his regret at not being able to attend the meeting, but hoped we might have a pleasant meeting, in fact, he knew we would, and asked the Cor. Secretary to be his interpreter, and extend to the members his most sincere wishes for their future welfare.

Another communication from Dr. Jas. Hughes on behalf of the Trustees of the Chicago Veterinary College, was received. "Regarding the first query therein, viz.: That the applicant for admission be required to pass a creditable examination in spelling, reading, writing, grammar, arithmetic, and possess a good common school education, we would state that since the organization of the Chicago Veterinary College, this rule has been rigidly adhered to, each student, on failure to produce a certificate, being subjected to a critical examination in the common school branches before being enrolled. Query second, That the term of study shall be increased from two terms, as it now is, to three. Before answering this query permit us to make a short statement. Nearly a year since, a bill entitled, "An Act to Regulate the Practice of Veterinary Medicine and Surgery in the State of Illinois," was introduced into the Legislature. Fath-ered by the Illinois State Veterinary Medical Association, modest in its demands, and comparatively lenient to those whom it was intended to operate against, this bill was thrown out by committee both in the House and Senate, the sole objection being that the examination asked for, although rudimentary, would exclude the majority of non-qualified practitioners in the State, and leave extensive areas destitute of veterinary services. This reply gives the key to the status of the profession in this and many adjoining States, and leads the way to the question as to whether we are justified in voluntarily consenting to extend the course of the Chicago Veterinary College from two to three terms. Under the existing circumstances we think we are not. We consider we would be doing an injustice to ourselves, as qualified practitioners, by limiting the number of students who attend colleges, thus leaving the profession open to non-graduates, with whom the properly qualified veterinary surgeon is practically placed upon the same level. We would be doing an injustice to live stock owners, as also to live stock, by continuing to leave them in the hands and at the mercy of those who have and still take advantage of the old time privilege to usurp the title of Veterinary Surgeon. And lastly, we would be doing an injustice to our students. The average veterinary student is not a millionaire, and in the majority of cases can ill afford to bear the expenses attendant on an additional term. He is usually a man of ambition and energy, who by years of toil and saving, accumulates sufficient to enable him to attend college with a view of graduating. Possessed of a good common school education, accustomed to industry during his early life, he carries his industrious habits with him to college. Here he wastes no hours of study; he sees all the diseases which occur in routine practice; he assists in the performance of all operations which are necessary, upon all the lower animals; and after attending two full courses he passes an honorable examination and graduates. So much for the two years' course which we still adhere to. We consider that a three term course would be premature at present.

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The profession, in its existing condition in the West, does not demand that such a change be made, and the condition will continue so long as the unqualified element predominates; or in other words, so long as educated veterinary surgeons are sparsely distributed. When the supply of competent veterinary services bears any kind of close relation to the demand, then in our opinion will be time enough to extend the course from two to three terms. Regarding the third query, that each student shall be required to devote the intervening months under a qualified veterinary surgeon, I would state that we have no rule making it compulsory on students to spend their summer months in the manner indicated, but that we recommended it in our prospectus, and have always continued to impress upon our students the advantage to be gained from adopting such a course. Should the rule become generally adopted, we would have no objection to including it in our prospectus, and seeing that it was enforced as far as practicable. We wish you to convey our regrets to the Association at being unable to be present; however, we wish you may have a pleasant meeting."

A lengthy communication was received from Dr. J. C. Meyer, Jr., chairman of the Committee on Diseases, whose duty it is to report on new and interesting diseases which come under their observation since our last meeting. No less than thirty-nine cases of glanders had come under his observation during the past year. He also referred in his report to the incompleteness of the laws regulating the suppression of contagious diseases, and urged the members present to take some steps to get proper legislation on the subject. He also spoke of the Humane Society of Cincinnati destroying many cases, but in reality they have no authority.

A communication was received from Dr. Forbes, V.S., Second U. S. Cavalry, asking that the Ohio State Veterinary Association endorse a petition asking the military authorities at Washington to make the army veterinary surgeon a commissioned officer, as it is in foreign countries. The petition was signed by President Newton and Cor. Secretary Fair, and will be forwarded to Washington, D. C.

A lengthy discussion took place on veterinary education, reviewing what had been written by Prof. Liautard and Prof. Hughes. It was the unanimous opinion that some steps should be taken to induce the faculty at the different colleges not to permit all students to graduate who attend their institutions. It is an outrage on any college, and especially upon qualified members of the profession, to allow a student to leave the institution who has been unable to get up the necessary work, and did not pass a creditable examination. What can injure the profession more than an incompetent, ignorant graduate, who, as a rule, takes special pride in telling where he is from when he is called upon to give expert testimony in court, or to hold a post-mortem, and write out a report, or even write a prescription, he being utterly unable to do so. Does it not look bad for the institution where he graduated? The question is, can the trustees of veterinary colleges afford to do this kind of work? It is a fact that some students are admitted into colleges who have not got a common school education; who cannot write a single sentence grammatically; but they are private enterprises, and are, perhaps, conducted for dollars and cents, and are ready to take in those who apply. Several members stated that they did not know of a single applicant being



rejected. Now if such institutions are conducted in this loose method, will it not be a long time before the profession will be recognized by showing that they have ability, and are competent to practice their profession? The fact is, the course of instruction is too short to teach the ordinary student what he should be taught. Medical students, as a rule, spend four years, and few less than three. Why should veterinary students not do likewise? Such was the expression of those present. The Ohio Association wishes to impress upon the minds of those most deeply interested in the education of young men for the profession, that the institution that turns out the best educated graduates will get their influence and support.

Dr. Colton made an excellent report of what was done at the meeting of the National Veterinary Medical Association, held in Washington last December. The time and place of holding their next meeting being left to the Ohio Association, it was decided to hold it in Columbus, O., January, 1887; and on that date, if possible, to induce the United States Association to hold their meeting in order that some compromise whereby an amalgamation of the two associations may be effected. There seems to be no special necessity of having the two associations, and the only hope of ever bringing about a union of the two was by holding a meeting on the same date and in the same city, where a committee from each might confer, and if practicable, hold a joint meeting. It is rather unfortunate that a few dissatisfied members should obstruct such a move, because in the end it would certainly prove advantageous to the profession at large. And after that is accomplished hold a four days' session in order that important subjects might be discussed, and the profession benefitted thereby.

Dr. W. F. Derr, of Wooster, O., read an able paper on "Parturient Apoplexy," which called out many valuable suggestions.

Dr. J. C. Meyer, Sr., Cincinnati, O., read a paper on "Epizootic Cellulites," which was listened to with interest.

A motion was made to ask Prof. Liautard to publish both papers in the REVIEW.

A vote of thanks was passed upon Prof. Liautard for publishing Dr. J. C. Meyer Jr's., paper on "Osteo Porosis."

A vote of thanks was tendered Dr. J. C. Gordon, M.D., for his address of welcome.

The Chair appointed a committee consisting of Drs. Butler, Howe and Chase, to draw up such resolutions as this Association may deem proper to have spoken on by Prof. Detmers at the different county institutes where he expected to make several speeches on veterinary legislation. The following is their report:

As the live stock of this State exceeds the amount of all agricultural products, and at present is without any adequate protection, we, as a committee, recommend the following: First, that all known cases of contagious and infectious diseases among live stock should be reported to the proper authorities, and that a practitioner of veterinary medicine be compelled, under the penalty of a fine, to make such a report. Second, that all qualified veterinarians have the power to destroy any or all cases considered by him to be dangerous, or to quarantine them, if in his opinion advisable. And in case of dispute the owner to have the right to call in the State veterinarian; and also that the State compensate

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the owner for the loss. Third, and to assure the public that a veterinarian is qualified or unqualified, let such County Clerk keep a book of registration and compel such a graduates or non-graduates, as the case may be, to register their names and residences therein. Fourth, and after a period, to be decided upon by this Association, none but graduates of standard veterinary colleges be allowed to register or use the title of Veterinary Surgeon, under the penalty of a fine.

Dr. Colton related some very interesting cases of tuberculosis, both in man and beast. Something must be done at once, or we cannot estimate the loss of human life.

The election of officers, which, according to our By-Laws, requires a candidate to be present to make valid his election, was then held, and resulted as follows: President, T. Bent Colton, Mount Vernon, O.; 1st Vice-President, Wm. R. Howe, Dayton, O.; 2d Vice-President, L. B. Chase, Berlin, O.; 3d Vice-President, W. E. Wight, Delaware, O.; Recording Secretary, W. A. Labron, Xenia, O.; Corresponding Secretary, W. C. Fair, Cleveland, O.; Treasurer, J. V. Newton, Toledo, O.; Board of Censors: W. F. Derr, Wooster, O.; L. B. Chase, Berlin, O.; W. B. Howe, Dayton, O.; D. D. Blanchard, Canton, O.; J. C. Meyer, Jr., Cincinnati, O.

The Treasurer's accounts were then audited by Drs. Newton and Fair, and found correct with a balance of \$159.45 in the treasury, which would be increased by the collection of dues.

A motion was made instructing the Secretary to notify all members in arrears that if they do not settle they will be suspended at our next meeting.

The next meeting will be held in Dayton, O., next June; and another meeting in September, at Columbus.

Considerable talk was indulged in regarding unprofessional conduct, but no special charges were made. However, it is likely to be revived in June, when it will receive the attention of the Association.

The subject of a free clinic at Columbus was talked up fully. Some members were inclined to think it was wrong and unprofessional, especially if the Professors made gratis visits in Columbus to treat horses for millionaires. A majority of the members were inclined to the belief that free clinics are the only method to get enough practice at the State University in order that students might see practice, but it was not treating brother professionals right to make visits in the city of Columbus. However, Dr. Detmers said it was not the case, and he desired to treat all the profession in Columbus in a professional manner, and he hoped the practitioners in that city would not feel too sensitive on the free clinic, as they must have material at the college, because they propose to turn out better educated veterinarians than any other institution in the United States. This is a State institution and it must stand.

The Association adjourned after having spent one of the most pleasant and profitable meetings we ever held.

A club of forty subscribers will be sent to Prof. Liautard for the *AMERICAN VETERINARY REVIEW*, commencing April 1st.

W. C. FAIR, V.S., *Cor. Secretary.*

## MASSACHUSETTS VETERINARY ASSOCIATION.

The regular monthly meeting of this Association was held in Boston, December 23, 1885.

The President and Vice-President being absent, Dr. F. H. Osgood was chosen Chairman pro tem.

There were present Doctors Bryden, Clements, Howard, Osgood, Peters, Penniman, Marshall and Winchester.

The minutes of the previous meeting were read and accepted, and reports of progress were presented from the Committees on Charter and Revision of the Constitution.

The meeting then listened to the reading of a paper by A. Marshall, M.R.C.V.S., on "Exostoses."

He said they were of two kinds, the "simple," which were regular in outline, round, nearly like bone, and originating from the periosteum—example, a splint; the "asperous," originating from periosteum and bone itself, and also a result of the "simple." The principal examples of exostoses he drew attention to were splints, spavins and ringbones. Of splints, he said they were caused by concussion, injuries, hereditary predisposition, etc., and there is first an inflammation of periosteum, causing a plastic exudation to be thrown out. They do not always cause lameness, but oftener do so in young animals than aged ones, and a horse with high knee action is more prone to them than one with less knee action. A peculiarity of splint lameness he said to be, that the animal will walk sound, but trot lame. Pressure causes pain; there is heat present, slight swelling, and then an exostosis presents itself, immediately in some cases, in others not for weeks. In cases where the lameness is excessive he advised subcutaneous periosteotomy to be performed.

Of spavins, he said hereditary predisposition no doubt operated as a cause, but that they were not entirely due to peculiarity of conformation, and mentioned the sprain of a ligament as a cause.

The origin of this exostosis he said to be in the cancellated structure of the interior of the bone, then inflammation of the cartilage takes place, and it is finally destroyed and a plastic exudate forms, and finally ankylosis takes place. The external deposit is not the *cause*, but the *result* of this diseased process. When ankylosis takes place the lameness generally disappears, but not so if ankylosis does not ensue.

Of ringbones, after classifying them as "true" and "false," and "low" and "high," he said, like the exostoses in the hock, they were the result and not the cause of a diseased process, and took their origin also in the cancellated tissue of the bone itself. He described their location and some peculiarities of the gait of an animal affected with them.

## DISCUSSION.

Dr. Bryden said he could not agree with the essayist that the diseased process originated in the cancellated structure of the bone. He thought there was a disturbance set up on the exterior, the circulation of the parts diverted, and their nutrition interfered with. A hyperæmia is produced, the foramina of the bone filled or obstructed, and thus the internal structures cannot get nutrition, and die.

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We have an obstructed circulation, and this was produced by an external disturbance; so don't think we can say that the diseased process *commences* in cancellated structure of interior, but that the disease of the cancellated structure is *secondary*. In bone spavin, for instance, extraordinary traction or tension of internal flexor may produce first a slight hyperæmia, slight swelling of tissue in the foramina follows, is kept up, and finally the cancellated tissue is involved by diversion of nutrition.

Dr. Peters asks how, if the vessels are *occluded*, the *exudate* forms?

Dr. Bryden says the arrest of nutrition is developed externally, and this nutritive material forms the exudate—a physiological process. Don't think the view of the essayist, the old pathology, can be held to.

Dr. Clements said the theory of exostoses generally accepted is that they are due to local inflammations, and if due to these, this inflammation must start from the periosteum. If exostoses are classified as *tumors*, and the theory of tumors accepted, that they are due to too great formative material, then these exostoses may be due to floating islands of cartilage in interior of bone, which are left when bone is formed, and then from some cause these form the exudate. Or the exostoses may spring from the cartilage itself, and this, he thinks, is a better working hypothesis.

Dr. Winchester says he thinks the above theory of adventitious cartilage, etc., a sound one, and notes adventitious teeth, etc., in support of that theory.

Dr. Bryden said that true anchylosis exists only in young animals, in older ones we certainly have death of tissue beneath. In a horse at ten years old, with spavin, you will always find disease of cancellated structure beneath. Don't believe the cancellated structure can form an exudate.

Further discussion took place in regard to the diseased process in navicular-thritis.

The paper and discussion which followed were very interesting, and a unanimous vote of thanks was tendered the essayist, Dr. Marshall.

Drs. Blackwood and Bunker were appointed essayists for the next meeting. No other business coming before the meeting, it was adjourned.

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The last regular meeting of the Massachusetts Veterinary Association was held in Boston, January 27th, 1886.

Dr. Bryden was chosen Chairman pro tem., and there were present Doctors Bunker, Clements, Howard, Peters, Penniman, Skully, Winchester and Winslow.

The committee appointed to revise the Constitution made a partial report, suggesting that its entire report be presented to a larger meeting than the present one, and advised the calling of a special meeting for the consideration of it.

It was voted, on motion of Dr. Bunker, that a special meeting for the above purpose be called for Thursday evening, February 4th.

There was presented for endorsement by the Association the petition of army veterinarians to the Lieutenant-General in command, calling attention to their present status and praying for rank in the service, and for the establishment of a veterinary corps in the United States army.

It was voted, on motion of Dr. Peters, that the endorsement of the Association be affixed to the petition, and that the members be requested to subscribe their individual signatures.

Dr. Bunker read a paper on "Action of the Horse."

He described the different periods of the horse's action, periods of movement and interval, and the different gaits while in action he described at length. He said the trot is an "American" gait, and *the* one in which a horse can put forth the extremity of his power.

He compared the trot of the horse with that of other animals, showing it to be perfect only in the former.

In comparison with the physiological motion of the horse, the essayist described certain derangements therefrom, as shown in different kinds of lameness.

In lameness of the shoulder, we have a loss of extension and flexion of the limb, and it is carried in abduction.

In elbow lameness, the gait is characterized by excessive dropping, the toe of the foot comes to ground before the heel, and the carpus bends but very little.

In carpal lameness, we see a long gait, leg carried straight, in circumduction, and heel comes to ground first.

In lameness from ringbone, on forward limb, heel comes to ground first; on hind limb, toe to ground first.

In hip lameness, we have only slight movement of the hip, and the animal goes with a hop.

In lameness of the stifle, the principal character of the gait is that the limb is carried in abduction.

In hock lameness, of which there are many kinds, we may have different gaits, but most of them characterized by a short, quick step, the toe coming to the ground first.

He described the lameness of springhalt, and said that it was seen in some horses only in going forward, in others only in going backward.

Of foot lamenesses, he noticed particularly the gait of an animal affected with navicular disease, describing the step as short, quick and catlike; whereas in other foot troubles we generally notice an excess of extension.

Dr. Bunker then showed some very interesting specimens of fracture: A fracture of the os suffraginis into 13 pieces, which took place on a smooth road; fracture of acetabulum, one of ilium, two specimens of spavin, one exostosis at metacarpo-phalangeal articulation, one of navicularthrititis.

Remarks on the paper were made by Drs. Skully, Clements, Bryden and Winchester.

A vote of thanks was tendered the essayist.

Drs. Blackwood and Winchester were appointed essayists for the next regular meeting.

No other business coming before the meeting, it was voted to adjourn.

L. H. HOWARD, *Secretary*.

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## MICHIGAN VETERINARY MEDICAL ASSOCIATION.

The annual meeting of the Michigan Veterinary Medical Association took place at the Cook House, Ann Arbor, Feb. 2d, 1886.

President S. Brenton in the chair.

The meeting was called to order at 1.30 P.M., and the following members answered to their names upon the roll call: J. Hawkins, Detroit; D. G. Sutherland, East Saginaw; D. Cummings, Port Huron; A. J. Chandler, Detroit; J. A. Dell, Ann Arbor; S. Brenton, Jackson; B. C. McBeth, Battle Creek; H. H. Clement, Cold Water; W. Jopling, Duosso; E. W. Bartram, Paw Paw.

The minutes of the previous meeting were read, and on motion of Dr. Hawkins, seconded by Dr. Bartram, were accepted.

The meeting then proceeded to the election of officers for the ensuing year.

Moved by J. Hawkins, seconded by A. J. Chandler, that J. A. Dell, of Ann Arbor, be elected President.

E. W. Bartram moved, and seconded by Dr. Hawkins, that Dr. Dell be elected by acclamation, as well as the rest of the officers. Carried.

The following officers were elected: President, J. A. Dell, Ann Arbor; First Vice-President, D. Cummings, Port Huron; Second Vice-President, E. W. Bartram, Paw Paw; Third Vice-President, H. H. Clement, Cold Water; Secretary, B. C. McBeth, Battle Creek; Treasurer, W. Jopling, Duosso; Censors, E. A. A. Grange, Moody, and Sutherland.

Moved by E. W. Bartram, seconded by A. J. Chandler, to adjourn and meet at 7 o'clock.

The meeting was again called to order at 7 o'clock.

Mr. Bartram, before retiring, appointed Dr. Hawkins to escort the newly elected President to the Chair, and thanked the Association for having conferred upon him the honor to preside over the organization of this Society.

Dr. J. A. Dell, on taking the Chair, addressed the Association with a few appropriate remarks, then proceeded to business.

Dr. W. Jopling read a very interesting paper on Constipation, and a lengthy discussion followed, which was very interesting.

Moved by Dr. Hawkins, seconded by Dr. A. J. Chandler, to appoint a committee to draft a Code of Ethics. Carried.

President J. A. Dell appointed S. Brenton, Dr. J. Hawkins, D. M. Moody, Dr. A. J. Chandler.

Dr. Hawkins moved, seconded by Dr. Bartram, that there be three delegates in attendance at the National Association at Columbus, Ohio. Carried.

Dr. Sutherland moved, seconded by Dr. Cummings, to ballot for delegates to attend National Association at Columbus, Ohio. Carried, and elected Dr. Dell, Dr. Sutherland, Dr. Chandler.

Moved by Dr. Hawkins, seconded by Dr. Cummings, that the President appoint a committee to draft a certificate. Carried.

Appointed Dr. Bartram, Dr. Hawkins, Dr. Clement.

Moved by Dr. Hawkins, seconded by Dr. Clement, that Dr. J. V. Newton, of Toledo, become an honorary member of the Michigan Veterinary Medical Association. Accepted.



Treasurer's Report: \$87.76 on hand.

President Dell appointed Dr. Hawkins Chairman of Committee, and ordered him to purchase seal for certificates.

Moved by Dr. Chandler, seconded by Dr. Sutherland, that a vote of thanks be tendered to retiring officer and visitors. Carried.

Moved by Dr. Hawkins, seconded by Dr. Sutherland, that the secretary be instructed to correspond with Prof. Liautard and find out what reduction he will make on price of REVIEW to members of this Association. Carried.

Moved by Dr. Sutherland, seconded by Dr. Cummings, that the Secretary send a report of this meeting to REVIEW. Carried.

Moved by Dr. Hawkins, seconded by Dr. Bertram, that Dr. Sutherland, Dr. Jopling, and Dr. Chandler each read a paper at the next meeting. Carried.

Moved by Dr. Hawkins, seconded by Dr. Chandler, that a vote of thanks be tendered to Dr. Jopling for the reading of his paper. Carried.

The visiting gentlemen were Dr. J. V. Newton, Toledo; Dr. Drake, Veterinary Dentist of Lebanon, Ohio (Dr. Drake also showed a very nice set of instruments), and Dr. Aherson, Veterinary Dentist of Toledo, Ohio.

Moved by Dr. Sutherland, seconded by Dr. Hawkins, to adjourn to meet on Wednesday at 2 P.M. the week of the State Fair wherever State Fair is held. Carried.

B. C. MoBETH, *Acting Secretary*.

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